

Adaptation and Customization

CUSTOMIZED PRINTING SOLUTIONS FOR INDUSTRIAL APPLICATIONS



PRINTING TECHNOLOGIES
ENGINEERED IN GERMANY

Your Microplex partner:

SOFTWARE-ENGINEERING

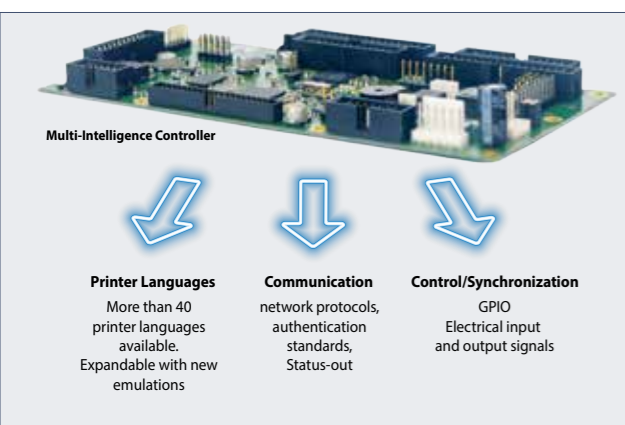
- Integration, Automotive, Chemicals, Hazardous Goods
- Logistics, Distribution, Shipping Room
- Trade, e-Commerce
- Health and Financial Sector
- Mobile Applications, Replacement

HARDWARE-ENGINEERING

- Adaptation and Customization of Microplex Printing Systems
- Firmware Adaptation and Connection to Customer applications
- Modifications of Hardware Components
- Advice, Development and Support of Individual Solutions



Application-related development of the SOLID 45ET-2



The Microplex Print Controller (MPC)

- Multi-Intelligence Controller: rasterizing incoming print data, controlling and monitoring the output device. Modular Microplex firmware.
- Modern LAN interface with all security and authentication standards (IEEE 802.1X)
- 40+ printer languages available (e.g. IGP/PGL, PCL5, ZPL, Labelpoint and PDF direct printing), as well as barcodes.
- User-defined forms, fonts and logos can be stored directly in the printer's resident form memory (RFM). These are ready for use immediately after the printer is switched on and do not have to be loaded externally each time, which enables faster and more efficient print processing.
- Thermal printers can be operated like laser printers and vice versa - 200 dpi data can be output on 300 dpi printers
- Intelligent barcode generation
- Status-Out, GPIO, SNMP/IPv6
- Remote control via Ethernet

Industrial Printing Solutions Without Compromise

As a system partner, you know that maximum precision and precise timing are crucial in mission-critical applications. Microplex maximizes the performance of industrial printers through precise control and optimal use of resources, thus ensuring seamless integration into **complex logistics and production environments**.

With a focus on customization and individual solutions, we support you with targeted **hardware and software customizations** to efficiently advance your project - always with an eye on costs.

Microplex Software-Engineering

Regardless of whether you are implementing an industrial printing solution with thermal printers, cut-sheet laser printers or continuous laser printers - regardless of whether these are integrated into **robot systems, production lines or shipping systems**: the central element of every Microplex printing solution is the Multi-Intelligence Controller (MPC).

Our **in-house software engineers** at Microplex are at your side: We adapt the Microplex printing system individually to your requirements and ensure that the implementation is efficient and within the specified cost framework.

Individual firmware adjustments to the Multi-Intelligence Controller (MPC) for ideal project support

Microplex offers system developers the opportunity to support projects individually and optimally with comprehensive adaptations to the Multi-Intelligence Controller (MPC). We focus on three essential aspects of **software and firmware adaptation**:

Extension and implementation of printer languages (emulations)

Microplex supports more than 40 printer languages and extends these as needed to meet specific customer requirements. This includes **modifying** existing languages and **integrating new printer languages** to meet complex requirements. An example of this is implementing a new **barcode** in an existing printer language if it was not included in the original language scope.

Optimizing communication between printers and host systems/devices

The adaptation of the MPC makes it possible to integrate modern network **communication protocols** and new **authentication standards**. In addition, the Microplex communication system **Status-Out** has been extended to enable bidirectional monitoring of the printer status and the print job status via the data interface. These functions provide detailed feedback to host systems and equipment, increasing efficiency and operational reliability in production environments.

Flexibility through adjustments to the Microplex GPIO interface

The **GPIO interface** of the MPC allows the integration of special customer-specific requirements, such as for an **applicator interface**. Targeted adjustments to the GPIO interface can also be used to optimize the control and synchronization of Microplex printers in systems, enabling precise coordination with individual process requirements. With these flexible adjustments, the Multi-Intelligence Controller (MPC) offers a reliable basis for efficiently implementing project-specific requirements in demanding industrial applications.

Microplex Hardware-Engineering

Commercially available laser and thermal printers are reliable, but reach their limits when it comes to complex logistics and production applications. They cannot synchronize print data with other machines, do not offer customized paper output, and cannot be integrated into post-processing processes.

This is where the in-house Microplex hardware engineers support you: We modify or customize a Microplex printing system individually so that the implementation is efficient and within budget.

- We offer customized printing systems for every application - tailored to **timing, printing speed, connection and size**.
- Our hardware options are mounted directly on Microplex printing systems and are specifically adapted to specific requirements in terms of architecture, shape and design or manufactured according to individual specifications.
- The **paper output** can be flexibly adapted to the requirements of subsequent processing steps, for example with a **face-up output** or an **extension (bridge)**.
- We develop new hardware options or adapt existing ones, including traffic light signaling systems, label dispensers (peelers), cutting devices (cutters), additional sensors or winding technology for label printing.
- Our printing units are **continuously developed** to ensure excellent print quality - especially for barcode output or special printable media.
- An example of a chassis adaptation is the **logiJET TM4**:

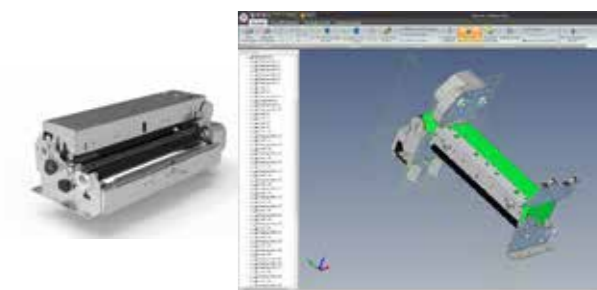
During the course of its product development, the mobile thermal printer logiJET TM4 was specifically adapted to the requirements of a wide range of applications. One optimization is the **new opening direction** of the device cover: it can now be opened upwards, which significantly reduces the space required by the printer. In addition, the **cover lock** has been made more robust to ensure secure closure even in demanding applications, for example on forklifts. Through these and other improvements in close cooperation with our system partners, the user-friendliness and efficiency of the printer have been significantly increased.

Microplex printers are more than just output devices; they provide comprehensive solutions for highly automated industrial and logistics applications.

Do you need a customized printing solution?

With manufacturer know-how, Microplex offers you in-house hardware and software engineering with short communication channels to our support. In close cooperation with you, we produce your complete solution that is a custom fit and customized to the individual requirements of your project.

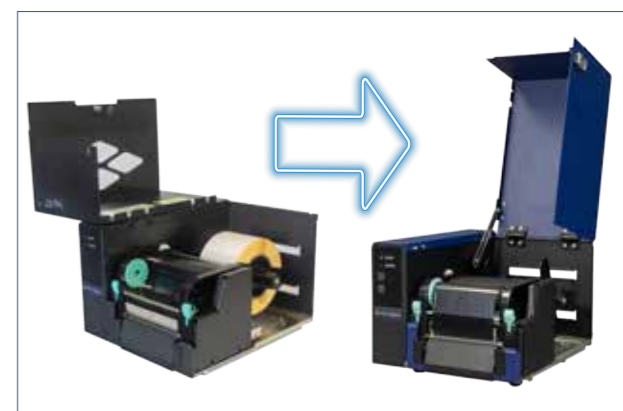
The Microplex hardware and software engineers support your project. Talk to us!



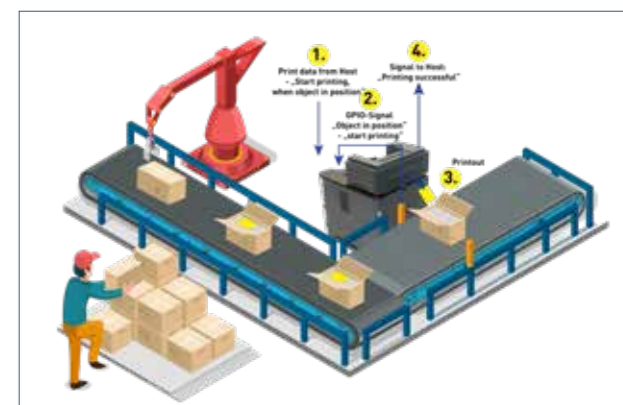
Inhouse CAD Construction and 3D Modelling



SOLID T4-2 integrated via GPIO into a cut-sheet feeder



Application-driven adjustments to the logiJET TM4



System synchronization with GPIO